

DAN RIVER COAL ASH SPILL



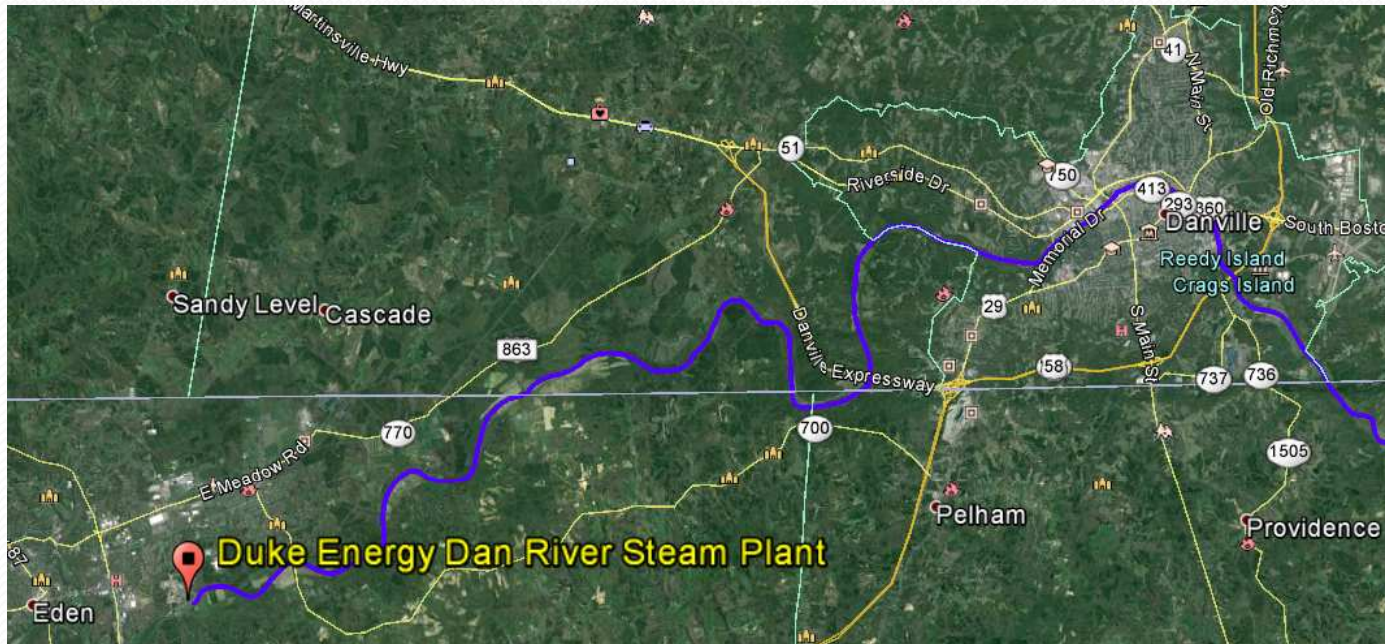
Danville Public Meeting

David K. Paylor, DEQ Director

March 18, 2014

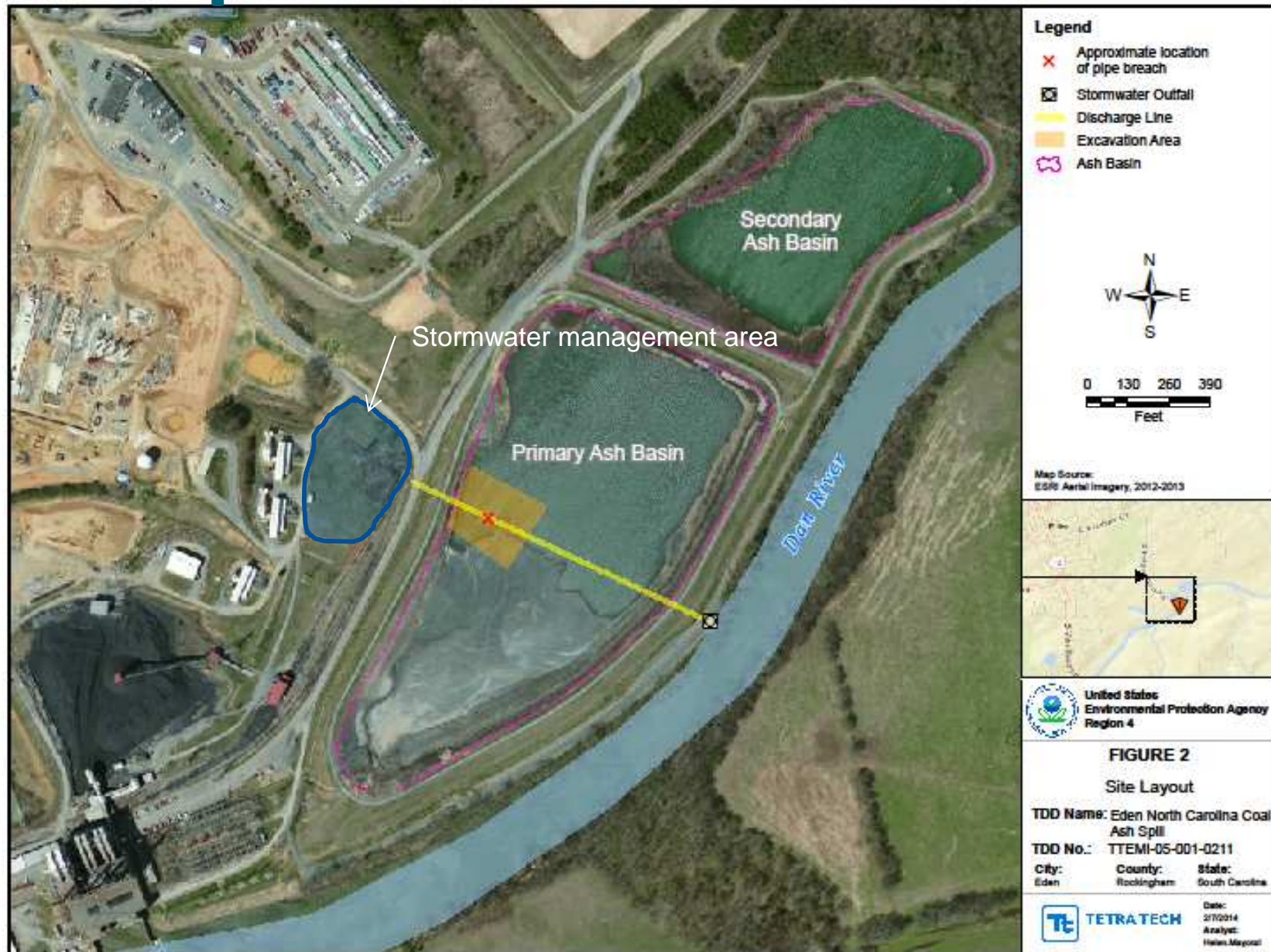


Background:



- Sunday, 2/2/14: coal ash and contaminated water spilled into Dan River from Duke Energy site near Eden, NC.
- Estimated 39,000 tons of coal ash entered river.
- On Scene Coordinators on site by Tuesday, 2/4: EPA, North Carolina, DEQ, U.S. Fish and Wildlife Service and Duke Energy.

Site Map:



What is Coal Ash:

- Residue generated from burning coal; generally stored at power plants or placed in landfills.
- Ash has large variety of constituents – mostly silicon oxide, iron oxide, and aluminum oxide, with trace amounts of arsenic, selenium, mercury, boron, thallium, cadmium, chlorides, bromine, magnesium, chromium, copper, nickel, and other metals.

Emergency Response Actions:

- Immediately began river water monitoring at drinking water intakes.
- All drinking water has met standards; monitoring continues daily.
- Saturday, 2/8 – Duke plugged damaged 48” storm water pipe.
- Friday, 2/21 - second, 36” pipe discharging arsenic-contaminated groundwater was plugged.
- Water quality, sediment and fish monitoring ongoing by DEQ, North Carolina, and EPA contractor.



Emergency Response Actions (cont):



- Crews recovered coal ash deposit just below discharge point.
- Ash recovery at site being evaluated upstream of Schoolfield Dam
- VA Health Dept. posted signs along Dan River advising limited contact with coal ash; adverse health effects not likely.

Environmental Assessments:

- 2/11 – VADEQ collected water and sediment samples at 4 sites from state line to halfway between Danville and South Boston.
- Samples analyzed for metals:
 - Water sample concentrations did not exceed VA Water Quality Standards.
 - No sediment levels above freshwater screening values.
- Preliminary review of all other Virginia water quality data collected by EPA contractor shows no exceedances of VA Water Quality Standards.



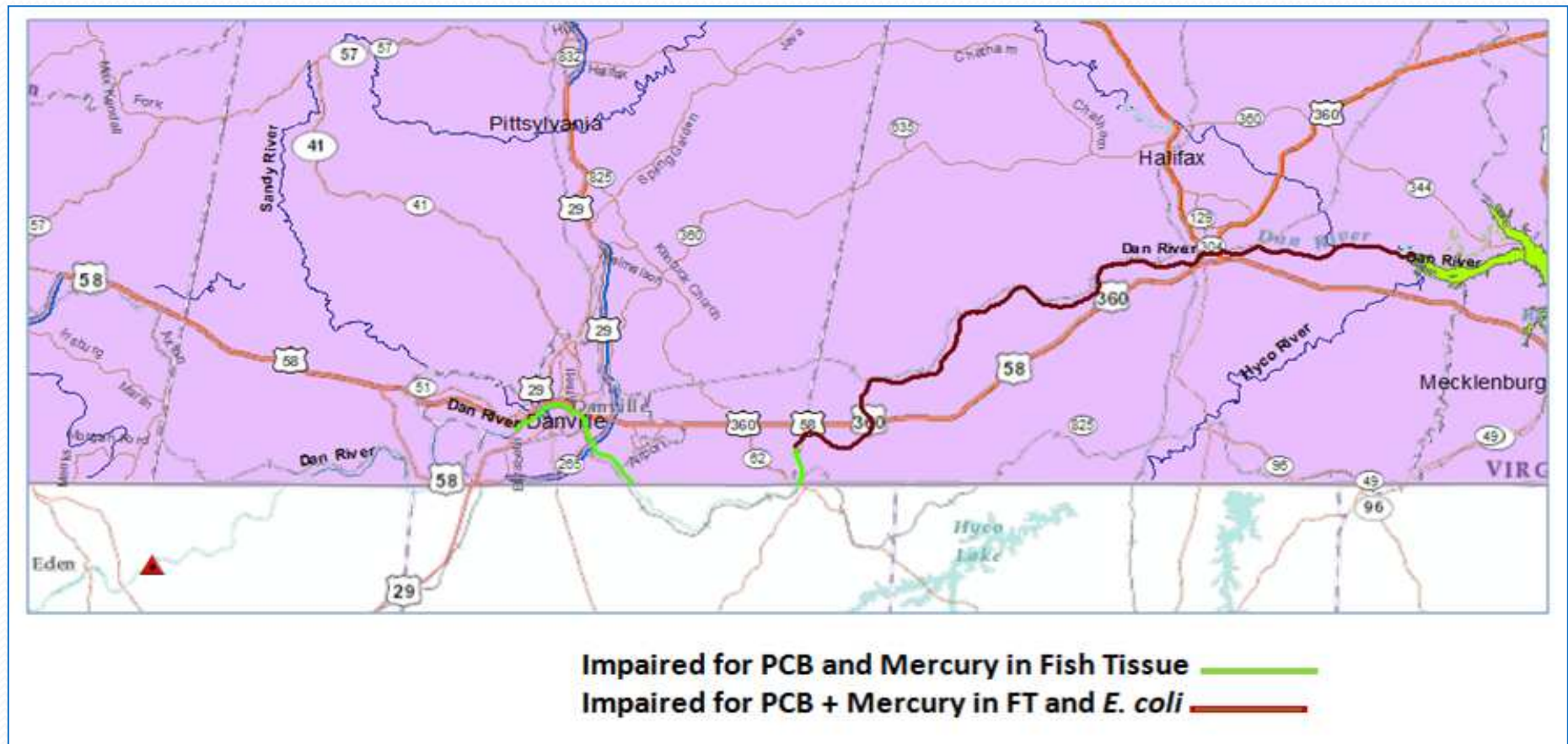
Environmental Assessments (cont.):

- 2/20 – DEQ collected fish upstream of Schoolfield Dam.
- 25 fish tissue samples analyzed for 23 metals:
 - **Arsenic** level not elevated; VA Health Dept. no reason found to change current advisory.
 - **Mercury** below VA Health Dept. level of concern.
 - Levels of other 21 metals either:
 - Below detection limit, or
 - Screening value not available
- It's too soon for fish to take up recently spilled coal ash metals.



Fish Consumption Advisory:

- VA Health Dept. fish consumption advisory exists for Dan River, due to PCBs and mercury from historical activities.



Looking Ahead:

- VA Health Dept. toxicologists reviewing fish tissue results.
- Summarize all existing DEQ water quality data for area.
- Technical Workgroup has drafted coal ash survey plan; under review.
- Secure permits to allow ash removal in VA portion of river.
- Long-Term Environmental Impact Assessment:
 - Develop cooperative state/federal monitoring plan; assess any long-term impacts to fish and metals bioaccumulation.
 - Will require several years monitoring to detect changes and trends.
 - Also assess any impacts to habitat, especially river bottom where sediment can affect living resources.
 - Consider need to monitor in lakes/reservoirs.

Holding Duke Energy Fully Accountable:

- Enforcement action and civil damage claims being evaluated.
- DEQ working with Duke Energy on cost reimbursements for emergency response:
 - Include interested VA agencies and localities
 - DEQ “clearing house” for documentation with direct payment to localities
 - Localities and agencies retain option to take independent action
 - Separate from any enforcement or damage claims

Assessment of Virginia's Impoundments:

- Coal ash managed/regulated in VA as both a waste and a resource. Material can be beneficially reused or recycled, disposed as dry waste in nonhazardous industrial landfills, or impounded as wet waste.
- In 2013, EPA reviewed structural integrity of Virginia's coal ash impoundments; none received an unsatisfactory rating.
- EPA noted deficiencies needing attention; all have been corrected except 2:
 - Corrections scheduled to be completed next month at one.
 - Other will be closed by the end of the year.



Questions?